Preliminary Classification:

Proposed Class:

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand comer of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129.' " M.P.E.P. § 601, 7th ed.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): DAISUKE NAKAMURA, TAKESHI AOTA

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the paper or names of the inventor or inventor." For titlely

is filed supplying or changing the name or names of the inventor or inventors." For (title):

Title: HEAT DISSIPATING STRUCTURE OF PRINTED CIRCUIT BOARD AND FABRICATING METHOD THEREOF

EXPRESS MAILING UNDER 37 C.F.R. § 1.10*

(Express Mail label number is mandatory.)
(Express Mail certification is optional.)

I hereby certify that this paper, along with any document referred to, is being deposited with the United States Postal Service on this date November 25, 2003, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 as "Express Mail Post Office to Addressee" Mailing Label No. EV303712989US

Margery B. Hood

(type or print name of person mailing paper)

Signature of person certifying

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

*WARNING: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(New Application Transmittal [4-1]—page 1 of 15)

1. Type of Application This new application is for a(n) (check one applicable item below) Original (nonprovisional) ☐ Design □ Plant WARNING: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application. WARNING: Do not use this transmittal for the filing of a provisional application. NOTE: If one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION. \Box Divisional. Continuation.

2. Benefit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: "A nonprovisional application or international application designating the United States of America may claim an invention disclosed in one or more prior-filed copending nonprovisional applications or international applications designating the United States of America. In order for an application to claim the benefit of a prior-filed copending nonprovisional application or international application designating the United States of America, each prior-filed application must name as an inventor at least one inventor named in the later-filed application and disclose the named inventor's invention claimed in at least one claim of the later-filed application in the manner provided by the first paragraph of 35 U.S.C. 112. In addition, each prior-filed application must be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
 - (ii) Complete as set forth in § 1.51(b); or

☐ Continuation-in-part (C-I-P).

- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(f) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

WARNING: 37 C.F.R. § 1.78(a)(2) deals with the time in which the claim for the benefit of an earlier filing date must be made and states:

"(2)(i) Except for a continued prosecution application filed under § 1.53(d), any nonprovisional application or international application designating the United States of America claiming the benefit of one or more prior-filed copending nonprovisional applications or international applications designating the United States of America must contain or be amended to contain a reference to each such prior-filed application, identifying it by application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. Cross references to other related applications may be made when appropriate (see § 1.14).

- (ii) This reference must be submitted during the pendency of the later-filed application. If the later-filed application is an application filed under 35 U.S.C. 111(a), this reference must also be submitted within the later of four months from the actual filing date of the later-filed application or sixteen months from the filing date of the prior-filed application. If the later-filed application is a nonprovisional application which entered the national stage from an international application after compliance with 35 U.S.C. 371, this reference must also be submitted within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) in the later-filed international application or sixteen months from the filing date of the prior-filed application. These time periods are not extendable. Except as provided in paragraph (a)(3) of this section, the failure to timely submit the reference required by 35 U.S.C. 120 and paragraph (a)(2)(i) of this section is considered a waiver of any benefit under 35 U.S.C. 120, 121, or 365(c) to such prior-filed application. The time periods in this paragraph do not apply if the later-filed application is:
 - (A) An application for a design patent;
 - (B) An application filed under 35 U.S.C. 111(a) before November 29, 2000; or
- (C) A nonprovisional application which entered the national stage after compliance with 35 U.S.C. 371 from an international application filed under 35 U.S.C. 363 before November 29, 2000.
- (iii) If the later-filed application is a nonprovisional application, the reference required by this paragraph must be included in an application data sheet (§ 1.76), or the specification must contain or be amended to contain such reference in the first sentence following the title.
- (iv) The request for a continued prosecution application under § 1.53(d) is the specific reference required by 35 U.S.C. 120 to the prior-filed application. The identification of an application by application number under this section is the identification of every application assigned that application number necessary for a specific reference required by 35 U.S.C. 120 to every such application assigned that application number."

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICA-TION(S) CLAIMED.

☐ The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

Papers Enclosed

A. Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153 (Design) Application

15 Pages of specification

3 Pages of claims

Sheets of drawing

WARNING: DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).

been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin." (complete the following, if applicable) The enclosed drawing(s) are photograph(s). NOTE: 37 C.F.R. 1.84 "(b) Photographs "(1) Black and white. Photographs, including photocopies of photographs, are not ordinarily permitted in utility and design patent applications. The Office will accept photographs in utility and design patent applications, however, if photographs are the only practicable medium for illustrating the claimed invention. For example, photographs or photomicrographs of: electrophoresis gels, blots (e.g., immunological, western, Southern, and northern), auto radiographs, cell cultures (stained and unstained), histological tissue cross sections (stained and unstained), animals, plants, in vivo imaging, thin layer chromatography plates, crystalline structures, and, in a design patent application, ornamental effects, are acceptable. If the subject matter of the application admits of illustration by a drawing, the examiner may require a drawing in place of the photograph. The photographs must be of sufficient quality so that all details in the photographs are reproducible in the printed patent. "(2) Color photographs. Color photographs will be accepted in utility and design patent applications if the conditions for accepting color drawings and black and white photographs have been satisfied. See paragraphs (a)(2) and (b)(1) of this section." The enclosed drawing(s) are in color. Three (3) sets of color drawings and a "PETITION TO ACCEPT COLOR DRAWING(S)" are attached. 37 C.F.R. §§ 1.84(a)(2) and 1.84(b). NOTE: 37 C.F.R. 1.84(a) "(2) Color. On rare occasions, color drawings may be necessary as the only practical medium by which to disclose the subject matter sought to be patented in a utility or design patent application or the subject matter of a statutory invention registration. The color drawings must be of sufficient quality such that all details in the drawings are reproducible in black and white in the printed patent. Color drawings are not permitted in international applications (see PCT Rule 11.13), or in an application, or copy thereof, submitted under the Office electronic filing system. The Office will accept color drawings in utility or design patent applications and statutory invention registrations only after granting a petition filed under this paragraph explaining why the color drawings are necessary. Any such petition must include the following: (i) The fee set forth in § 1.17(h): (ii) Three (3) sets of color drawings; (iii) A black and white photocopy that accurately depicts, to the extent possible, the subject matter shown in the color drawing; and (iv) An amendment to the specification to insert (unless the specification contains or has been previously amended to contain) the following language as the first paragraph of the brief description of the drawings: The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee." formal ☐ informal B. Other Papers Enclosed 2 Pages of declaration and power of attorney Pages of abstract __ Other

NOTE: "Identification of drawings. Identifying indicia, if provided, should include the title of the invention, inventor's name and application number, or docket number (if any) if an application number has not

4. Add	itiona	papers enclosed
] An	nendment to claims
		Cancel in this applications claims before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
		Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)
(X) Pro	eliminary Amendment
ξx] Inf	ormation Disclosure Statement (37 C.F.R. § 1.98)
NOTE:	37 C.I the ap	F.R. § 1.97 (b) An information disclosure statement shall be considered by the Office if filed by oplicant within any one of the following time periods:
		Nithin three months of the filing date of a national application other than a continued prosecution lication under § 1.53(d);
		Within three months of the date of entry of the national stage as set forth in § 1.491 in an rnational application;
		Before the mailing of a first Office action on the merits; or
WARNI	. c	n order to ensure consideration of information previously submitted but which has not been considered in the parent application, an applicant must resubmit the information, complying with 7 C.F.R. § 1.97 and 37 C.F.R. § 1.98, in the continuing application filed under 37 C.F.R. § 1.53(b). See § 609B(3), M.P.E.P., 7th Edition, Rev. 1.
X] Fo	rm PTO-1449 (PTO/SB/08A and 08B)
X] Cit	tations
] De	eclaration of Biological Deposit
	pe	abmission of "Sequence Listing," computer readable copy and/or amendment rtaining thereto for biotechnology invention containing nucleotide and/or nino acid sequence.
] Au tiv	thorization of Attorney(s) to Accept and Follow Instructions from Representa-
] Sp	pecial Comments
] Ot	her
5. Dec	laratio	on or oath (including power of attorney)
NOTE:	the price by all application the sign by a sign declar person	If you was a subsequently joined in a continuation or divisional application provided that it is nonprovisional application is not required in a continuation or divisional application being filed is or fewer than all the inventors named in the prior application, there is no new matter in the ation being filed, and a copy of the executed declaration filed in the prior application (showing gnature or an indication thereon that it was signed) is submitted. The copy must be accompanied statement requesting deletion of the names of person(s) who are not inventors of the application filed. If the declaration in the prior application was filed under § 1.47, then a copy of that ation must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning in under § 1.47 has subsequently joined in a prior application, then a copy of the subsequently ted declaration must be filed. See 37 C.F.R. §§ 1.63(d)(1)–(3).
NOTE:	is direct abbres counti	laration filed to complete an application must be executed, identify the specification to which it cted, identify each inventor by full name including family name and at least one given name, without viation together with any other given name or initial, and the residence, post office address and by or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 § 1.63(a)(1)–(4).
NOTE:	as pre	nventorship of a nonprovisional application is that inventorship set forth in the oath or declaration scribed by § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration scribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship

is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors." 37 C.F.R. § 1.41(a)(1).

(A)	Enc	nosed
	Exe	ecuted by
		(check all applicable boxes)
	X	inventor(s).
		legal representative of inventor(s). 37 C.F.R. §§ 1.42 or 1.43.
		joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
		☐ This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F.R. § 1.47 is also attached. See item 13 below for fee.
	No	t Enclosed.
ti n	he U.S nay be	the filing is a completion in the U.S. of an International Application or where the completion of S. application contains subject matter in addition to the International Application, the application is treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE SEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.
		Application is made by a person authorized under 37 C.F.R. § 1.41(c) on behalf of all the above named inventor(s).
(The c	lecla	ration or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).
		☐ Showing that the filing is authorized. (not required unless called into question. 37 C.F.R. § 1.41(d))
6. Inven	torsh	nip Statement
WARNIN	0	the named inventors are each not the inventors of all the claims an explanation, including the wnership of the various claims at the time the last claimed invention was made, should be ubmitted.
The inv	ento/	rship for all the claims in this application are:
	Th	e same.
		or
		t the same. An explanation, including the ownership of the various claims at time the last claimed invention was made,
		is submitted.
		will be submitted.
7. Lang	-	
,	An En require	plication including a signed oath or declaration may be filed in a language other than English. glish translation of the non-English language application and the processing fee of \$130.00 ed by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within such time as may by the Office. 37 C.F.R. § 1.52(d).
X	En	glish
	No	on-English
		The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).

8. Assig	nment		
Ž	An assignment of the	he invention to <u>Nokia Co</u>	rporation
		separate "COVER SHEET F "PANYING NEW PATENT APPL tached.	
	will follow.		
		ed with a new application, send two seption." Notice of May 4, 1990 (1114 O.G. 7	
WARNIN	G: A newly executed "CEI in-part application is fi	RTIFICATE UNDER 37 C.F.R. § 3.73(b)" iled by an assignee. Notice of April 30,	must be filed when a continuation- 1993, 1150 O.G. 62-64.
	This is a contin	nuation 🗌 divisional application	on and the assignment
	document for the p	parent application 0 /	was filed
	on	·	
			Reel
			Frame
9. Certi	fied Copy		
Certifie	ed copy(ies) of applica	ation(s)	
Japan		2002-342456	November 26, 2002
Coun	try	Appln. No.	Filed
Coun	try	Appln. No.	Filed
Coun	try	Appln. No.	Filed
from whi	ch priority is claimed		
X	is (are) attached.		
	will follow.		
NOTE:	37 C.F.R. § 1.55 Claim for	foreign priority.	
	"(a) • • •	,	
	of the application or sixtended is not extendable. as well as any foreign and the application for whintellectual property authorized.	ation filed under 35 U.S.C. 111(a), the ci he application, and within the later of fou- een months from the filing date of the The claim must identify the foreign appli oplication for the same subject matter a nich priority is claimed, by specifying the onity), day, month, and year of its filing. cation under 35 U.S.C. 111(a) if the app	or months from the actual filing date prior foreign application. This time ication for which priority is claimed, and having a filing date before that the application number, country (or The time periods in this paragraph
	(A) A design application;	or	
	(B) An application filed b	efore November 29, 2000.	
	priority under 35 U.S.C. paragraph (a) of this secti 119(a)-(d) or 365(a) is pre claim may be accepted if number, country (or intel	accepted in accordance with the provision 119(a)-(d) or 365(a) not presented with in its considered to have been waived. If seented after the time period provided by the claim identifying the prior foreign appliance in the day a petition to accept a delayed claim for property by:	ithin the time period provided by a claim for priority under 35 U.S.C. by paragraph (a) of this section, the dication by specifying its application or, month, and year of its filing was

- (1) The claim under 35 U.S.C. 119(a)-(d) or 365(a) and this section to the prior foreign application, unless previously submitted;
 - (2) The surcharge set forth in § 1.17(t); and
- (3) A statement that the entire delay between the date the claim was due under paragraph (a)(1) of this section and the date the claim was filed was unintentional. The Commissioner may require additional information where there is a question whether the delay was unintentional."

NOTE: 37 C.F.R. § 1.63 Oath or declaration.

- "(a) An oath or declaration filed under § 1.51(b)(2) as a part of a nonprovisional application must:
- (c) Unless such information is supplied on an application data sheet in accordance with § 1.76, the oath or declaration must also identify:
 - (2) Any foreign application for patent (or inventor's certificate) for which a claim for priority is made pursuant to § 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month, and year of its filing."

The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 C.F.R. § 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. § 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 C.F.R. § 1.16)

A. XX Regular application

			CLA	MS AS	FILED		•
Number filed			Number Extra			Rate	Basic Fee 37 C.F.R. § 1.16(a) \$₹\$\$\$\$\$ \$770.0
Total Claims (37 C.F.R § 1.16(c))	i. 6	- 20	=	0	×	\$ 18.00	
Independent Claims (37 C.F.R § 1.16(b))	i. 3	_ 3	=	0	×	\$ 84.00	
Multiple depende if any (37 C.F.R	ent clair	m(s),	* ,,,		+	\$280.00	
☐ Amen ☐ Fee for NOTE: If the fees to prior to the	dment or extra for extra e expirat	claims is	multiples not boot paid or ime period or ime	e-deper eing pa of filing the od set for	idencies aid at thi ey must be	is enclosed is time. paid or the clair	l. ms cancelled by amendment, and Trademark Office in any
7,54,55 67 7	20 201101			Calcul	ation		\$ <u>770.00</u>

В.		Design application (\$330.00—37 C.F.R. § 1.16(f))	
		Filing Fee Calculation	\$
C.		Plant application (\$520.00—37 C.F.R. § 1.16(g))	
44	۸	Filing fee calculation	\$
11.	_	sertion of Small Entity Status	
NOT	_∐ ~.	pp. 12 1 j made at a coman co	-
NOT		37 C.F.R. § 1.27(c) deals with the assertion of small entity declaration thereof or by payment as a small entity of the bathe national phase and states:	ty status, whether by a written specific asic filing fee or the fee for the entry into
		"(c) Assertion of small entity status. Any party (person organization) should make a determination, pursuant to part to be accorded small entity status based on the definitions and must, in order to establish small entity status for the part make an assertion of entitlement to small entity status, in or (c)(3) of this section, in the application or patent in who	aragraph (f) of this section, of entitlement is set forth in paragraph (a) of this section, urpose of paying small entity fees, actually the manner set forth in paragraphs (c)(1)
		(1) Assertion by writing. Small entity status may be estable to small entity status. A written assertion must:	ished by a written assertion of entitlement
		(i) Be clearly identifiable;	
		(ii) Be signed (see paragraph (c)(2) of this section); ar	nd
		(iii) Convey the concept of entitlement to small entity is a small entity, or that small entity status is entitled to While no specific words or wording are required to ass small entity status must be clearly indicated in order to	be asserted for the application or patent. sert small entity status, the intent to assert
		(2) Parties who can sign and file the written assertion.	The written assertion can be signed by:
		(i) One of the parties identified in § 1.33(b) (e.g., an att § 3.73(b) of this chapter notwithstanding, who can at	orney or agent registered with the Office), so file the written assertion;
		 (ii) At least one of the individuals identified as an inver- or declaration has not been submitted), notwithstanding assertion pursuant to the exception under § 1.33(b) or 	§ 1.33(b)(4), who can also file the written
		(iii) An assignee of an undivided part interest, notwith chapter, but the partial assignee cannot file the assertio § 1.33(b) of this part.	standing §§ 1.33(b)(3) and 3.73(b) of this n without resort to a party identified under
		(3) Assertion by payment of the small entity basic filing of party, of the exact amount of one of the small entity be (g), (h), or (k), or one of the small entity basic national fe (a)(4), or (a)(5), will be treated as a written assertion of ertype of basic filing or basic national fee is inadvertently	asic filing fees set forth in §§ 1.16(a), (f), es set forth in §§ 1.492(a)(1), (a)(2), (a)(3), titlement to small entity status even if the
		(i) If the Office accords small entity status based on pay national fee under paragraph (c)(3) of this section that balance of the small entity fee that is applicable to the appropriate surcharge set forth in § 1.16(e), or § 1.16	is not applicable to that application, any at application will be due along with the
		(ii) The payment of any small entity fee other than those (whether in the exact fee amount or not) will not be to to small entity status and will not be sufficient to esta	eated as a written assertion of entitlement

or a patent."

WARNING: 37 C.F.R. § 1.27(c)(4): "Assertion required in related, continuing, and reissue applications. Status as a small entity must be specifically established by an assertion in each related, continuing and reissue application in which status is appropriate and desired. Status as a small entity in one application or patent does not affect the status of any other application or patent, regardless of the relationship of the applications or patents. The refiling of an application under § 1.53 as a continuation, divisional, or continuation-in-part application (including a continued prosecution application under § 1.53(d)), or the filing of a reissue application, requires a new assertion as to continued entitlement to small entity status for the continuing or reissue application." **WARNING:** "Small entity status must not be established when the person or persons signing the . . . statement can unequivocally make the required self-certification." M.P.E.P., § 509.03 (emphasis added). (complete the following, if applicable) ☐ Status as a small entity was asserted in the prior application __/ _____, filed on ______, from which benefit is being claimed for this application under: 35 U.S.C. § 119(e) 120 121 365(c) and which status as a small entity is still proper and asserted for this application. A copy of the written assertion of small entity filed in the prior application is included. NOTE: A refund based on establishment of small entity status, of a portion of fees timely paid in full prior to establishing status as a small entity may only be obtained if an assertion under § 1.27(c) and a request for a refund of the excess amount are filed within three months of the date of the timely payment of the full fee. The three-month time period is not extendable under § 1.136. 37 C.F.R. § 1.28(a). Filing Fee Calculation (50% of A, B or C above) 12. Request for International-Type Search (37 C.F.R. § 1.104(d)) (complete, if applicable) Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13.	re	e Pay	yment being made at this time		
] No	ot Enclosed		
			No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. § subsequently.)	1.16(e)	can be paid
	X] Er	nclosed		
		X	Filing fee	\$	770.00
		<u>(X</u>	Recording assignment (\$40.00; 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".)	\$	40.00
		C	Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached (\$130.00; 37 C.F.R. §§ 1.47 and 1.17(i))	\$.	
		Ε	For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52(d) and 1.17(i))	\$	
			Processing and retention fee (\$130.00; 37 C.F.R. §§ 1.53(d) and 1.21(l))	\$	
			Fee for international-type search report (\$40.00; 37 C.F.R. § 1.21(e))	\$	
NC	OTE:	failing 37 C.I either	F.R. § 1.21(I) establishes a fee for processing and retaining any applic to complete the application pursuant to 37 C.F.R. § 1.53(I) and this F.R. §§ 1.53 and 1.78(a)(1), indicate that in order to obtain the benefit the basic filing fee must be paid, or the processing and retention feat of 1 year from notification under § 53(I).	i, as well a t of a prior	s the changes to U.S. application,
			Total fees enclosed	\$_810	0.00
14.	Me	thod	of Payment of Fees		
	K) At	tached is a 🖄 check 🔲 money order in the amount of	\$810	0.00
	X] Au	uthorization is hereby made to charge the amount of \$	_UNDEI	RPAYMENT
			to Deposit Account No. 23-0442		
			to Credit card as shown on the attached credit card tion form PTO-2038.	informati	ion authoriza-
WA	ARNII	VG: C	Credit card information should not be included on this form as it ma	y become	public.
			narge any additional fees required by this paper or creathe manner authorized above.	edit any	overpayment
		-	A duplicate of this paper is attached.		

15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

WARNING: Even though small entity status is accorded where the wrong type of small entity basic filing fee or basic national fee is selected but the exact amount of the fee is paid, applicant still needs to pay the correct small entity amount for the basic filing or basic national fee where selection of

pay the correct small entity amount for the basic filing or basic national fee where selection of the wrong type of fee results in a deficiency. While an accompanying general authorization to charge any additional fees suffices to pay the balance due of the proper small entity basic filing or basic national fee, specific authorizations to charge fees under § 1.17 or extension of time fees do not suffice to pay any balance due of the proper small entity basic filing or basic national fee because they do not actually authorize payment of small entity amounts. Changes To Implement the Patent Business Goals; Final Rule [Fed. Reg.: September 8, 2000, pages 54603-54683, at 54611; OG: October 3, 2000, pages 14-39].

The Office is hereby authorized to charge, in the manner shown above, the following additional fees that may be required by this paper and during the entire pendency of this application.

37 C.F.R. § 1.16(a), (f) or (g) (filing fees)

37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

☐ 37 C.F.R. § 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a)).

☐ 37 C.F.R. § 1.17 (application processing fees)

NOTE: ". . A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))

NOTE: Section 1.311(b) provides that an authorization to charge the issue fee (§ 1.18) to a deposit account may be filed in an individual application only after the mailing of the notice of allowance. Accordingly, general authorizations to pay fees and specific authorizations to pay the issue fee that are filed prior to the mailing of a notice of allowance will generally not be treated as requesting payment of the issue fee and will not be given effect to act as a reply to the notice of allowance. Applicant, when paying the issue fee, should submit a new authorization to charge fees, such as by completing box 6b on the current PTOL-85B form. Where no reply to the notice of allowance is received, the application will stand abandoned notwithstanding the presence of general authorizations to pay fees or a specific authorization to pay the issue fee that were submitted prior to mailing of the notice of allowance. Where an attempt is made to pay the issue fee but an incorrect amount is submitted, § 1.311(b)(1), or where the Office's issue fee transmittal form (currently PTOL-85(B)) is completed by applicant and submitted, § 1.311(b)(2), in reply to a notice of allowance, an exception will be made. Such submissions will operate as a request to charge the issue fee to any deposit account identified in a previously filed (i.e., submitted prior to the mailing of the notice of allowance) authorization to charge fees, and will be allowed to act as payment of the correct issue fee. § 1.311(b). See also the change to § 1.26(b). Notice of September 8, 2000, Fed. Reg. 54603-54683, at 54646 and 54647.

NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . the issue fee. .. " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

16. Instructions as to Overpayment

NOTE:	" Amounts of twenty-five dollars or less will not be returned unless specifically requested within
	a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may
	be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).
37	00.0440

K	Credit Account No	23-0442	
	Refund		

Reg. No. 31,391

Tel. No. (203) 261-1234

Customer No. 004955

SIGNATURE OF PRACTITIONER Francis J. Maguire

Ware, Fressola, Van Der Sluys & Adolphson LLP

(type or print name of attorney)

755 Main Street, P.O. Box 224

P.O. Address

Monroe, Connecticut 06468

(New Application Transmittal [4-1]-page 13 of 15)

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	pr sta th	neck the following item if the application in this transmittal claims the benefit of ior U.S. application(s) (including an international application entering the U.S. age as a continuation, divisional or C-I-P application) and complete and attache ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF RIOR U.S. APPLICATION(S) CLAIMED)
		Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed
		Number of pages added
		Plus Added Pages for Papers Referred to in Item 4 Above
		Number of pages added
		Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.
		Number of pages added
		Plus "Assignment Cover Letter Accompanying New Application"
		Number of pages added
	State	ment Where No Further Pages Added
		no further pages form a part of this Transmittal, then end this Transmittal with is page and check the following item)
	¥-	This transmittal ends with this page.